

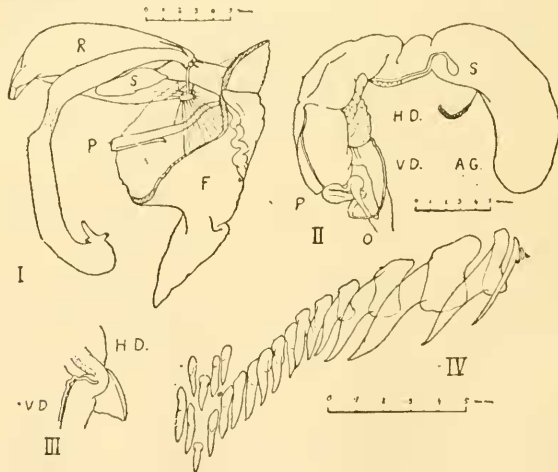
NOTES ON THE ANATOMY OF *NATALINA TRIMENI*, Melv. and Pons.

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ON purely conchological grounds this species was placed by its authors<sup>1</sup> in the genus *Erope* [= *Natalina*]. Through the kindness of Mr. J. H. Ponsonby I have lately had an opportunity of examining the animal, which agrees so closely in its anatomy with *N. Caffra* (Fer.)<sup>2</sup> and *N. Kynsnaensis* (Pf.)<sup>3</sup> that there can be no doubt but that it really does belong to that genus.

Unfortunately the single spirit specimen I received had been removed from its shell, minus the visceral sac, but it was otherwise in fair condition when it reached me. I might mention that the specimen was captured on the beach at Koega, 40 miles from Graham's Town, S. Africa.



- I. Simplified figure of dissection from the right side after removal of the reproductive organs. F, foot; C, cesophagus; P, pedal gland; R, radula sac; S, salivary gland. II. The genital organs removed from the body but otherwise undisturbed. A, albumen gland; H and H', hermaphrodite duct; S, spermatheca; V, vas deferens. III. Another view of part of II., showing the origin of the vas deferens (V.). IV. Complete half-row of the radula.

<sup>1</sup> Ann. and Mag. (s. 6) x. (1892) p. 237, pl. xiii. fig. 1.

<sup>2</sup> Pilsbry, Proc. Acad. Philad. 1890, pp. 41-3, pl. i. figs. A-F.

<sup>3</sup> Pilsbry, Proc. Acad. Philad. 1889, pp. 277-8, pl. ix. figs. A-D.

The animal was too contracted for much to be made of its external characters. No trace of any "tail-pore" could be discerned.

The disposition of the internal organs is much affected by the enormous size of the radula sac: thus, the œsophagus passes to the right side of the radula sac, and the central nervous system, instead of being circum-œsophageal, forms a ring round the buccal mass, the cerebral ganglia being situated entirely on the right side of the latter; the closely-applied cerebro-pedal and cerebro-pleural commissures are much longer on the left than on the right side.

A pair of large, closely-approximated ganglia are situated on the radula sac in the angle between it and the œsophagus. A well-marked commissure passes from the upper ganglion over the œsophagus to the left cerebral ganglion, while the lower one is similarly connected with the right cerebral ganglion by a commissure passing under the œsophagus. A commissural ring is consequently formed round the beginning of the œsophagus.

Only a single salivary gland was apparently present: it formed a large compact mass suspended below the crop (Fig. I. S.).

As in *N. Caffra* the pedal gland (Fig. I. P.) is greatly developed: it is a long tube, lying freely in the body cavity, and transversely folded upon itself at a point about two-thirds its length from the opening.

The genital organs are represented in their natural relationship in Figs. II. and III. The spermatheca arises near the point of subdivision of the hermaphrodite duct, and then passes upwards for a time deeply buried in the latter; it terminates in a pyriform enlargement.

There is, of course, no jaw. The radula consists of 66 rows having the formula 19·1·19; its extreme length is 16 mm. One half of one of the very oblique rows of teeth is figured in Fig. IV. It will be seen that all the teeth are aculeate; the twelfth is of particularly large size, while the outermost five are quite rudimentary.

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